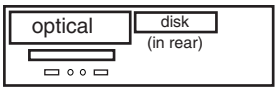
ThinkCentre® M90 Small (3245) - TopSeller (Windows 7)

Type-model	Slot x bay	Processor	GHz	Cores	Memory[8]	SATA disk	SATA optical	Graphics	Monitor conn	ENERGY STAR 5.0	Intel vPro	Win7 preload	Global Educ	Avail date
✂ 3245-A9U	2x3	Core i3-530	2.93	2	2GB	250GB[2]	DVD±RW	Intel HD	VGA, DP	ES50	None	Pro 32	None	Mar 10
✂ 3245-B3U	2x3	Core i3-530	2.93	2	*4GB*	320GB	DVD±RW	Intel HD	VGA, DP	ES50	None	Pro 64	None	Mar 10
☞ 3245-B7U	2x3	Core i3-550	3.20	2	2GB	320GB	DVD±RW	Intel HD	VGA, DP	ES50	None	Pro 64	None	Dec 10
✂ 3245-B1U	2x3	Core i5-750	2.66	4	*3GB*	500GB	DVD±RW	***310***	VGA, DP	ES50	None	Pro 32	None	Mar 10

- ***The most powerful, stable, and manageable desktop with next generation Intel platform***
- ***These small and medium business (SMB) models are part of the US TopSeller™ Program***
- ***These models have a 3-year limited warranty[1]***
- ***These systems are Microsoft® Office 2010 Product Key Ready (O10PKR)***

Positioning	*Ultimate security, stability, and manageability for the enterprise*
Processor	**Intel® Core™ i3 Processor i3-530** or **i3-550** with **dual-core**, Intel 64, Intel Hyper-Threading Technology, Virtualization Technology, integrated 1333MHz dual-channel DDR3 memory controller, and 4MB cache or **Intel Core i5 Processor i5-750** with **quad-core**, Intel 64, Virtualization Technology, Turbo Boost Technology (up to 3.20 GHz at max turbo mode), integrated 1333MHz dual-channel DDR3 memory controller, and 8MB cache
Implementation	Processor in LGA1156 socket
Memory	**2GB**, **3GB**, or **4GB std**, 16GB max, **UDIMM**, **PC3-10600 1333MHz DDR3**, four 240-pin DIMM sockets; *Italics:* standard memory in two sockets; two sockets available; *Non-italics:* standard memory in one socket; three sockets available
Graphics	*Some:* **Intel HD Graphics** in processor, HDCP, DirectX® 10, uses main memory (up to 765MB *[2GB models]* or 1759MB *[4GB models]*), one analog VGA DB-15 connector, one DisplayPort™ connector, supports dual independent display *Some:* **NVIDIA® GeForce® 310**, PCI Express® 2.0 x16 adapter, 512MB, one analog VGA DB-15 connector, one DisplayPort connector, HDCP, DirectX 10, NVIDIA PureVideo®, NVIDIA CUDA™, 30 watts
DP dongle	None
SATA disk	**250GB**, **320GB**, or **500GB**, SATA 3.0Gb/s 7200 rpm
SATA DVD±RW	Super Multi-Burner DL DVD±RW SATA 1.5Gb/s Drive
SATA Controller	Serial ATA, SATA 3.0Gb/s, integrated in chipset, RAID 0/1, two SATA connectors for disk and optical
eSATA port	None
Diskette drive	None
Media reader	None
Chipset	**Intel Q57 Express Chipset**, Platform Controller Hub [PCH] (SATA 3.0Gb/s with RAID 0/1 support, PCI, ethernet, and USB), SMSC® SCH5147 Super I/O
Front ports	Two USB 2.0, microphone (stereo, 3.5mm), headphone (stereo, 3.5mm)
Rear ports	Six USB 2.0, serial (9-pin), ethernet (RJ-45), monitor (VGA DB-15, DisplayPort)
Rear audio ports	Line-in (stereo, 3.5mm), line-out (stereo, 3.5mm), microphone-in (stereo, 3.5mm)
Internal connector	Two USB 2.0 planar conn (1 used; one open for media reader or 2 rear USB ports)
Audio	High Definition (HD) Audio, Realtek® ALC662 codec
Speaker	Internal speaker for business audio
Ethernet	One gigabit ethernet port, Intel 82578DM, Wake on LAN®
Intel AMT	None
Modem	None
Security chip	STMicroelectronics ST19NP18 Trusted Platform Module (TPM), TCG 1.2-compliant
Keyboard	Preferred Pro USB Keyboard (USB connector), 104-key, black, Lenovo® logo
Mouse	Optical Wheel Mouse (USB connector), black, Lenovo logo
Power supply	240 watts with 85% efficiency, auto-sensing, active Power Factor Correction

Small



Bay ① 5.25", 1.6" high, access, std optical
Bay ② 3.5", 1" high, no access, std disk
Bay ③ 3.5", .5" high, access, open (reader)

Slot 1: Low Profile, PCI Express 2.0 x16 (45w max)
Slot 2: Low Profile, 32-bit PCI 2.3

- Business black color; metal case
- 12.5" W X 14.0" D X 3.9" H
- 317mm W X 355mm D X 99mm H
- 16.5 lb (7.5 kg) in maximum configuration
- Toolless cover flips up and tilts backward on rear hinges
- Toolless disk, optical drive removal
- Toolless adapter retention
- Toolless system board retention
- System floor stand for vertical orientation

Security

- Security chip (see information on left)
- Security slot (in rear for attachment of optional Kensington® MicroSaver® cable)
- Power-on password
- Hard disk password
- Boot sequence control
- Boot without keyboard and mouse
- Serial port I/O control
- Individual USB port disablement

Environmental Features

- EPEAT™ Gold rating
- ENERGY STAR® 5.0-compliant
- GREENGUARD® certified
- RoHS-compliant

Supports ThinkVantage® technologies

Preloaded operating system[20]

- *Some:* Genuine Windows® 7 Professional 32
- *Some:* Genuine Windows 7 Professional 64

Preloaded applications[5] (all OSes; only some listed)

- Rescue and Recovery™
- Password Manager
- ThinkVantage System Update
- ThinkVantage Power Manager
- ThinkVantage Toolbox
- Norton™ Internet Security 2011 (30 days of virus definitions)
- Adobe® Reader®
- Adobe Flash® Player
- Skype™ for Windows
- Microsoft Office 2010 preloaded; purchase product key to activate
- Corel® Burn.Now™ (DVD±RW)
- Corel DVD MovieFactory® (DVD±RW)

Accessories

1GB PC3-10600 DDR3 UDIMM	57Y4389
2GB PC3-10600 DDR3 UDIMM	57Y4390
500GB SATA 3.0Gb/s Disk(7200 rpm)	43R1990
1TB SATA 3.0Gb/s Disk (7200 rpm)	45J7918
Super Multi-Burner DL DVD±RW SATA Drive	41N5620
DisplayPort to Single-link DVI-D Cable	45J7915
DisplayPort to VGA Monitor Cable	57Y4393
NVIDIA GeForce 512MB 310 (DP, VGA)	57Y4397
NVIDIA Quadro® 512MB FX380 LP (DP, DVI)	57Y4396

More accessories on O-M90 sheet

Acc Guide in pdf **lenovo.com**/accessoriesguide
Other accessories at **lenovo.com**/accessories

Limited Warranty[1]

- **3-year parts and labor**
- **International Warranty Service[9]**
- **Customer Replaceable Unit (CRU) parts only (with limited onsite service for selected parts[3], 8 am - 5 pm, Mon - Fri coverage excluding holidays, next business day response time)**
- **Onsite service upgrade options (in eligible locations):[7]**
  - **3-year LOR 9x5, 4 hour response** (ThinkPlus™ part number 41C9192)
  - **3-year LOR 24x7, 4 hour response** (ThinkPlus part number 41C9193)
  - **4-year LOR 9x5, Next Business Day** (ThinkPlus part number 41C9194)
  - **4-year LOR 9x5, 4 hour response** (ThinkPlus part number 41C9195)
  - **4-year LOR 24x7, 4 hour response** (ThinkPlus part number 41C9196)
- **ThinkPlus services at lenovo.com**/thinkplus/warranty
- **Post warranty maintenance services available**
- **24 hour x 7 day[14] toll-free support during the warranty period[1] via 800-426-7378**

See footnotes for important warranty information

☞ US model announced November 30, 2010; previous models on March 2, 2010

✂ US models withdrawn effective April 2011

© Lenovo